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REMARKS

Claims 1-22 are currently pending in the above application. Claims 9-22 are being withdrawn by the foregoing amendment without prejudice. Claims 23-28 are added by the foregoing amendment.

Paragraphs 0040 and 0043 of the specification has been amended to more accurately describe the respective examples as having a cured vinyl ester resin coupled to the plurality of filaments prior to introduction of the outer topcoat. Support for such changes is found in paragraphs 0028 and 0029 of the original specification, in which the resin 30 is cured by an ultraviolet light source 51 prior to introduction of the thermoplastic topcoat 32. Consideration of the specification in light of these changes is respectfully requested.

Claims 1 and 6 has been amended by the foregoing amendment to change "curable" to "cured" to more accurately describe the subject matter. Support for such a change is found in paragraph 0028 of the original specification, in which the resin 30 is cured by an ultraviolet light source 51. Reconsideration of claims 1 and 6 is thus respectfully requested.

Claim 1 has also been amended by the foregoing amendment to state that the outer topcoat surrounds the UV cured matrix. Support for this change is found in paragraphs 0028 and 0029 of the original specification and in Figure 2 of the originally filed application. Reconsideration of claim 1 is respectfully requested.

Claim 6 stands rejected under 35 U.S.C. 112, second paragraph as being indefinite. Applicants respectfully traverse the Examiner's rejection. However, in an attempt to move this case towards allowance, Applicants have amended claim 6 to include the phrase "ultraviolet light cured vinyl ester" after the specific resin types to further describe the

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goods. Applicants respectfully suggest that such a modification overcomes the Examiner's rejection. Reconsideration of claim 6 is respectfully requested.

Claim 1 stands rejected under 35 U.S.C. 102(b) as being anticipated by Fernyhough et al. (U.S. Patent No. 5,700,417). Applicants respectfully traverse the Examiner's rejection, noting that the outer topcoat layer of claim 1 not equivalent of the extruded outer polymer "jacket" of polyethylene, polyvinylchloride, or polyurethane as described in Column 5, Lines 54-56 of the Fernyhough et al. patent. In fact, Paragraph 6, Lines 54-56 states that "In the production of strength members for use in cables, the cables may be produced by extruding an outer "jacket" of e.g. polyethylene, PVC or polyurethane". (emphasis added) Thus, the cables, not the strengthening members themselves, are encased in the outer "jacket". The outer "jacket" described in the Fernyhough patent is thus akin to the polymer jacket 22 of the present application, not to the outer topcoat layer 20, as the Examiner concludes. As Fernyhough et al. does not describe an outer topcoat layer surrounding the matrix-coated elongate fibers as required in claim 1, claim 1 is not anticipated by Fernyhough et al. Reconsideration of claim 1 is thus respectfully requested.

Claims 1-5 stand rejected under 35 U.S.C. 102(b) as being anticipated by Olesen et al. (U.S. Patent No. 4,956,039). Applicants respectfully traverse the Examiner's rejection. Olesen, as stated in the Abstract, describes a cable-like synthetic composite body having a string of endless filament fibers impregnated with a first thermoplastic material in the form of a hot melt adhesive that is subsequently extruded into a sleeve member with a second thermoplastic resin which is filled with staple fibers of a high modulus of elasticity. A third thermoplastic layer is then applied by means of extrusion onto the sleeve layer. The present invention, on the other hand, requires a matrix of a UV cured vinyl ester resin encasing a plurality of elongated fiber members that is subsequently surrounded by an outer topcoat layer. As Olesen et al. does not describe a UV cured vinyl ester resin

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surrounding the fibers, Olesen cannot anticipate present claims 1-5. Reconsideration of claims 1-5 is thus respectfully requested.

Claims 2-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Fernyhough et al. as applied to claim 1, in view of Olesen as applied to claims 1-5, for reasons stated on Pages 4-6, Paragraph 9 of the Office Action. Applicants respectfully traverse the Examiner's rejection.

Section 2143 of the Manual of Patent Examining Procedure states that three basic criteria must be met for establishing a *prima facie* case of obviousness, stating:

"First, there must some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach all of the claim limitations."

"If the examiner does not establish a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness." Section 2142 MPEP, ch. 2100, p. 110. "When the references cited by the Examiner fail to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned."¹ One cannot use hindsight reconstruction, picking and choosing among isolated disclosures in the prior art, to deny that the claimed invention is unobvious.²

¹ In re Ochiai, 71 F.3d 1565, 37 U.S.P.Q.2d 1127 (Fed. Cir. 1995), citing In re Fine, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

² In re Fine, 837 F.2d at 1075.

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It would not be obvious to combine the Fernyhough et al. reference and the Olesen et al. reference to arrive at the present invention. No reason is shown why one of ordinary skill in the art would modify the Fernyhough et al. reference as the Office Action proposes.

As stated previously, Fernyhough et al. does not describe an outer topcoat layer surrounding a matrix of UV cured vinyl ester resin, as is claimed in claim 1, contrary to the Examiner's conclusion in the last sentence of the second paragraph of Paragraph 9 on Page 4 of the Office Action. In fact, what the Examiner apparently believes as being a separate outer topcoat layer, as described on Page 4, Paragraph 9, second paragraph of the Office Action, is actually a modification of the UV cured layer (blending the copolymers within the matrix), not an additional and distinct topcoat layer as is present in claim 1.

Further, while Fernyhough et al. may be used in some cable designs and applications, it is more often used in composites and coatings, and there is no indication that Fernyhough et al. is used in optical fiber cables as in the present invention, wherein the reinforcement rods are desired to be tough and have high translation of strain energy due to reduced defects and residual stresses. The present invention, as stated in claim 1, improves toughness and reduces defects through the addition of a UV cured vinyl ester matrix to the elongated fibers that is subsequently encased within an outer topcoat layer.

Thus, there is no motivation or suggestion in Fernyhough et al. reference to add an additional outer topcoat, along with the specific fiber types, topcoat types, and UV cured vinyl ester types, would be desirable or even beneficial based on Fernyhough et al.'s intended end uses in cabling systems, composites and coatings. Thus, there is no reason to combine Fernyhough et al. with Olesen et al. as the Examiner suggests to teach all of the claim limitations of claim 1. As claim 1 is not obvious in view of Fernyhough et al. in further view of Olesen et al., similarly dependent claims 2-8 and newly presented

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dependent claims 23-28 are not obvious in view of Fernyhough et al., as applied to claim 1, in view of Olesen et al. for the same reasons.

To combine Fernyhough et al. with Olesen et al., as the Office Action proposes, you would first have to utilize some of the fibers described in Olesen et al., combine that with the Fernyhough et al. UV cured coating, and then add the outer topcoat layer of Olesen et al. to arrive at some of the components of the present invention as claimed in claims 1-8 and 23-28. This is the very essence of hindsight reconstruction that is not allowed under MPEP Section 2143. As stated above, one cannot use hindsight reconstruction, picking and choosing among isolated disclosures in the prior art, to deny that the claimed invention is unobvious.³ Thus, claims 1-8 and 23-28 are not obvious in view of Fernyhough et al., as applied to claim 1, in view of Olesen et al.

Further regarding claims 5 and 24-28, one would have to add the high strength synthetic strand members not contemplated in either reference. These synthetic strands do not fall under the umbrella "any fibers with the reasonable expectation of success in the absence of unexpected properties" that are specifically related to glass fibers (first three lines of Page 5 of the Office Action) because they are not glass fibers. Thus, claims 5 and 24-28 are not obvious in view of Fernyhough et al., as applied to claim 1, in view of Olesen et al.

Further, regarding claims 7 and 8, and contrary to the Examiner's conclusion, the polybutylene terephthalate/polyether glycol copolymer material (claim 7) and ethylene acrylic acid copolymer material (claim 8) are not contemplated by either reference as a separate topcoat layer encasing a UV cured vinyl ester matrix. As previously stated, a blend of copolymers forming the UV curable layer (paragraph 9 of the Office Action stated in the last full paragraph of Page 4) is not the same as a separate outer topcoat layer

³ In re Fine, 837 F.2d at 1075.

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surrounding a UV cured matrix layer. Thus, claims 7 and 8 are not obvious in view of Fernyhough et al., as applied to claim 1, in view of Olesen et al.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that claims 1, 8 and 23-28 are in proper form and allowable over the cited prior art. The Examiner is invited to telephone the Applicants' undersigned attorney at (614) 321-7162 if any unresolved matters remain.

Respectfully submitted,

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